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EXAMINER

FISCHER, JUSTIN R

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Continuation of 11:

Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai (JP 2003002015) and further in view of Feijen and Nishizawa. The rejection has been set forth in Paragraph 4 of the previous communication.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai, Feijen, and Nishizawa as applied in claim 1 above and further in view of Poque. The rejection has been set forth in Paragraphs 3 and 4 of the previous communication.

Applicant argues that the vertical distance L disclosed in Nishizawa fails to account for any horizontal displacement between adjacent cords and the reference discloses measuring the vertical distance between metal filaments in two adjacent belt layers, and not the cord to cord distance between a belt reinforcement layer and a belt layer or between a belt reinforcement layer and a carcass layer.

First, Nishizawa specifically states that the vertical distance L is the distance between most adjacent filaments in the “opposed metal cords” between the adjoining metal cord layers in the belt (Column 6, Lines 9+). The language “opposed metal cords” suggests the lack of a horizontal displacement and thus, a true cord to cord measurement.

Second, it is agreed that the disclosed cord to cord distance (in Nishizawa) is between directly adjacent belt layers. In regards to the belt reinforcement layer, such a layer is nothing more than a belt layer that is directly adjacent an additional belt layer

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(working belt ply). Thus, the cord to cord distance between a belt reinforcement layer and a belt layer is a distance between directly adjacent belt layers. As such, one of ordinary skill in the art at the time of the invention would have found it obvious to form the relevant cord to cord distance between 0.5 and 1.5 mm. Also, while the reference fails to expressly define a distance between a belt layer and a carcass layer, one of ordinary skill in the art at the time of the invention would have recognized the values of Nishizawa as being consistent with (on the order of) the separation of reinforcing elements in adjacent tire layers. As best depicted in the figures, the belt reinforcement layer and carcass layer of Hirai are directly adjacent one another in the region axially outward of the belt layer maximum. It is emphasized that cords in directly adjacent tire layers are only separated by respective topping rubbers and such topping rubbers (together) generally would not be expected to have a thickness greater than 1.5 mm and applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed dimensions. Lastly, the specific topping rubber thickness, which defines the cord to cord distance, is a direct function of the size of the tire reinforcing elements and thus ultimately the specific tire being manufactured (smaller elements and smaller topping rubber in smaller tire constructions)- one of ordinary skill in the art at the time of the invention would have readily appreciated the broad range of the claimed invention.

/Justin R Fischer/
Primary Examiner, Art Unit 1791
May 13, 2009